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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,011	06/28/2005	James Walker Selway	267-93	7869
23117 7590 07/26/2007 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER JARRETT, RYAN A	
			ART UNIT 2125	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/530,011

Applicant(s)

SELWAY, JAMES WALKER

Examiner

Ryan A. Jarrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2007 and 14 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/22/07</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 02/22/07 was filed after the mailing date of the Non-Final Office Action on 08/22/06. The submission is in compliance with the provisions of 37 CFR 1.97(c). Accordingly, the information disclosure statements are being considered by the examiner.

### ***Drawings***

3. The new drawings were received on 05/14/07 (Figs. 3 and 4). These drawings are acceptable. The replacement drawings were received on 02/22/07 (Figs. 1 and 2). These drawings are not fully acceptable for the reasons noted below.
4. The drawings are objected to under 37 CFR 1.83(a) because they fail to show interface "55" as described in the specification on page 22 line 13. It is noted that Fig. 2 does contain a reference sign "55" in the center of the drawings, but it is not pointing to any apparent "interface". Fig. 2 also fails to show rules engine "R1-1" as described in the specification on page 22 line 18. Fig. 2 also fails to show active variable "58" as

described on page 22 line 29. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "58" and "60" have both been used to designate "Manufacturing Site" in Fig. 2. Reference character "58" should designate an "active variable" instead (see page 22 line 29). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the

application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

Reference sign "rules engine 1" mentioned on page 22 line 36 of the specification is not depicted in Fig. 2.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 7 and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification provides no guidance or examples as to why or how to specify a conditional rule for selecting which of the two or more relationships is to be used. What are some exemplary conditional rules that determine which relationship is to be used?

***Claim Rejections - 35 USC § 101***

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claim 1-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-27 are generally directed to an abstract idea (§101 judicial exception). For claims including such excluded subject matter to be eligible, the claim must be for a

practical application of the abstract idea. Diehr, 450 U.S. at 187, 209 USPQ at 8; Benson, 409 U.S. at 71, 175 USPQ at 676.

To satisfy section 101 requirements, the claim must be for a practical application of the §101 judicial exception, which can be identified in various ways: (1) The claimed invention “transforms” an article or physical object to a different state or thing, or (2) The claimed invention otherwise produces a useful, concrete and tangible result.

#### Practical Application by Physical Transformation

(1) In the instant application, claims 1-27 do not “transform” an article or physical object to a different state or thing.

#### Practical Application That Produces a Useful, Concrete, and Tangible Result

(2) For eligibility analysis, physical transformation “is not an invariable requirement, but merely one example of how a mathematical algorithm [or law of nature] may bring about a useful application.” AT&T, 172 F.3d at 1358-59, 50 USPQ2d at 1452. In determining whether the claim is for a “practical application”, the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is “useful, tangible and concrete”.

In the instant case of independent claims 1, 17, and 27 the final result achieved by the claimed inventions is merely “determining a manner of evaluation of the relationship and a dominance of a sub-process in an overall design process from the

specification of which of the variables are active and which are passive variables". This abstract result fails to provide the required "real-world result" that satisfies the "tangible result" and "useful result" requirement. At the very least, the claims should be directed to some type of real world application or use, such as package manufacturing.

Claims 2-16 and 18-26 depend from claims 1 and 17 and incorporate the same deficiencies, and further fail to rectify the aforementioned deficiencies.

When the final result of a claimed invention has not been used in a disclosed practical application, then a useful and tangible result has not been achieved.

11. Claims 1-16 are *additionally* rejected under 35 U.S.C. 101 because the claimed invention is directed to functional descriptive material: "data structure" representing descriptive material *per se* or computer programs representing computer listings *per se*.

Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware



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components which permit the data structure's functionality to be realized, and is thus statutory.

Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions.

Specifically speaking, although the claims 1-16 are directed to a "computerized system", all of the claimed elements (e.g., "user configurable interface", "relationship selection means", "goal specification means", "optimisation engine", and "relationship specification means") could reasonably be interpreted by one of ordinary skill, in light of the disclosure, to be software, such that the "computerized system" is software, per se, not tangibly embodied on a computer-readable medium. Such claims are not eligible for patent protection. This rejection is independent from the 35 U.S.C. 101 rejection of claims 1-16 above (practical application requirement).

***Claim Interpretations***

12. For the purpose of examining the application on the merits, the claimed limitation "active variable" has been construed to read on an "independent variable", and the claimed limitation "passive variable" has been construed to read on an "dependent variable".

***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Farrah et al. US 6,882,892.

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this

application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

For example, Farrah et al. discloses a computerized system for controlling a design process including a first design sub-process and a second design sub-process, outcomes of one of the first and second design sub-processes being linked to outcomes of the other of the first and second design sub-processes and vice versa by a relationship between one or more first design sub-process variables (A) and one or more second design sub-process variables (B) (col. 3 lines 41-46), the system comprising:

a user configurable interface between said first and second design sub-processes, said user configurable interface allowing a user of said system to control the design process (e.g., col. 8 lines 51-55) by specifying which of the one or more variables (A,B) are active variables which can have their domains modified by at least one process within the sub-process to which the variable belongs (e.g., Figs. 8-9, col. 9 lines 5-6, EN: *Dx3 and Bz4 are the independent variables in col. 9, which correspond to the claimed "active variables"*) and which of the one or more variables (A,B) are passive variables which have their domains determined within allowable values by the domains of the other variable or variables in the relationship (e.g., Figs. 8-9, col. 9 lines 5-6, EN: *Ax3 is the dependent variable in col. 9, which corresponds to the claimed "passive variable"*), and determining a manner of evaluation of the relationship and a dominance of a sub-process in an overall design process from the specification of which of the variables are active and which are passive variables (e.g., col. 9 lines 7-16).

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15. Claims 1-27 are additionally rejected under 35 U.S.C. 102(b) as being anticipated by WO/2001/54004, for the same reasons noted above with respect to Farrah et al. Farrah et al. is the U.S. national stage entry of the WO/2001/54004 publication.

### ***Response to Amendments***

16. Most all of the previous drawing objections have been withdrawn in light of the amendments to the drawings filed 02/22/07 and 05/14/07. Some objections were not addressed though and are repeated or modified above, as the case may be.

17. The previous specification objections have been withdrawn in light of the amendments to the specification filed 02/22/07.

18. The previous claim objections have been withdrawn in light of the amendments to the claims filed 02/22/07.

### ***Response to Arguments***

19. Applicant's arguments, see pages 14-15, filed 02/22/07, with respect to the rejection of claims 7 and 22 under 35 U.S.C. 112 1<sup>st</sup> paragraph as failing to comply with the enablement requirement have been fully considered but they are non-responsive since Applicant did not address the question posed, i.e., "What are some exemplary conditional rules that determine which relationship is to be used"?

20. Applicant's arguments, see pages 15, filed 02/22/07, with respect to the rejection of claims 1-26 under 35 U.S.C. 112 2<sup>nd</sup> paragraph have been fully considered and are mostly persuasive. The rejection of claims 1-26 under 35 U.S.C. 112 2<sup>nd</sup> paragraph has been withdrawn.

21. Applicant's arguments, see pages 15-16, filed 02/22/07, with respect to the rejection of claims 1-26 under 35 U.S.C. 101 have been fully considered but are not persuasive. At the very least, in order to satisfy the practical application requirement, the independent claims should be directed to some type of real world application or use, such as package manufacturing. Also, regarding the descriptive material nature of claims 1-16, it is noted that a "computerized" system can still be considered software per se.

22. Applicant's arguments, see pages 16-17, filed 02/22/07, with respect to the rejection of claims 1-26 under 35 U.S.C. 102(e) as being anticipated by Farrah et al. have been fully considered but are not persuasive. It is noted that the claimed terms "active variables" and "passive variables" are being construed to *read on* independent variables and dependent variables, respectively, as opposed to being *directly equated* to them. And Examiner submits that an independent variable (including the independent variables of Farrah et al.) is variable that can have its domain modified by various processes to which the variable belongs, akin to Applicant's claimed "active variable". And Examiner also submits that a dependent variable (including the

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dependent variables of Farrah et al.) is a variable that can have its domain determined within allowable values by the domains of other variables, akin to Applicant's claimed "passive variable". Further, Applicant's specification explicitly discloses that "a passive variable becomes a dependant variable in a relationship with other variables". So, it is not clear why it is incorrect for the Office to construe the claimed "passive variable" to read on a "dependant variable".

### ***Conclusion***

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

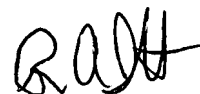
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan A. Jarrett whose telephone number is (571) 272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ryan A. Jarrett  
Examiner  
Art Unit 2125



07/21/07